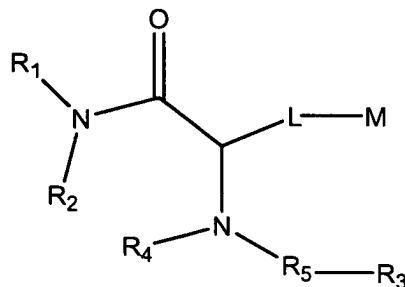


HISTONE DEACETYLASE INHIBITORS

ABSTRACT

[00294] Histone deacetylase inhibitors and uses thereof are provided that have the general formula



wherein

R₁, R₂, R₃ and R₄ are each independently selected from the group consisting of hydrogen, a substituted or unsubstituted straight chained C₁₋₁₂ alkyl, C₂₋₁₂ aminoalkyl or C₂₋₁₂ oxaalkyl, and a substituted and unsubstituted 3, 4, 5, 6, 7 or 8 membered ring, with the proviso that R₃ and R₄ are not both hydrogen;

R₅ is selected from the group consisting of a carbonyl, a substituted or unsubstituted C₁₋₃ alkyl, a substituted or unsubstituted -C₁₋₃ alkyl-C(O), a substituted or unsubstituted -C(O)-C₁₋₃ alkyl, and a substituted or unsubstituted -C(O)C(O)C₁₋₃ alkyl;

M is a substituent capable of complexing with a protein metal ion; and

L is a substituent comprising a chain of 3-12 atoms connecting the M substituent to the carbon atom alpha to the L substituent.